GLEANINGS IN BEE CULTURE

Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

PUBLISHED MONTHLY, AT MEDINA, OHIO,

Vol. II **BY A. I. ROOT & CO.** **No. 3**

In the Preparation of this Journal the following are the Principal Periodicals Consulted:

American Bee Journal. *Clarke.*

Bee Keeper's Magazine. *King.*

National Bee Journal. *Mrs. Tupper.*

[*Also Bound Volumes of the former since* 1860, *and Files of all other Bee Journals that have been Published in America.*]

American Agriculturist,

Prairie Farmer,

Rural New Yorker,

Country Gentleman,

Ohio Farmer,

Scientific American.

"Novice's Wind-Mill Print," Medina, Ohio.

MARCH.

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GLEANINGS IN BEE CULTURE.

DEVOTED EXCLUSIVELY TO BEES AND HONEY.

Vol. II. MARCH 1, 1874. No. III

HOW TO CONDUCT AN APIARY.

No. 3.

AS "order is heavens first law" we trust we shall be excused for considering that the first work to be done in March is to put the Apiary in complete order. Even before the bees are removed from their winter quarters we would insist that all rubbish of every description be cleaned up, if any has collected during the winter, and to avoid the unpleasantness of walking about in the soft ground we would the first thing, get a load or two of clean sawdust and make paths of it, to where each hive is to stand, and a good broad one to your own door.

As soon as the bees are in their places we shall expect you to see to every hive daily, and we appeal to the lady of the house if it is not too much to tolerate having muddy feet constantly coming in, to say nothing of the injury to your own health, from standing in the mud or wet ground and grass, if you should happen to make a prolonged stay at something unusual about some of the hives; besides wherever "Papa" or "sister" or "Auntie" goes, of course the little ones will want to go too, in fact should go, and we want to make it a pleasant place for all. When we first took possession of our present apiary so many of the bees got drowned during their first flight in the spring in puddles and standing water, that we got exasperated and in spite of frost and snowy weather we went at it bodily and cut underdrains 30 inches deep across the whole piece every two rods, and then as no tile were procurable right off, we sawed up pine dry goods boxes and covered the drains with short boards laid crosswise, then filled them up. That was eight years ago this spring and there has never been any standing water since, about our apiary.

A pine half barrel let in the ground at a place where several of the drains meet, affords a view at all times of the working of them, and they have never failed to take away all surplus water.

We presume the success of our Concords depends somewhat on these same underdrains, and by the way these grape vines should be pruned, by cutting all shoots down within two buds of the horizontal arms, as soon as this reaches our readers if it has not been done before. The proper time for pruning varies with different localities, but it should be done soon enough to prevent bleeding if possible, but prune them any way, for of all untidiness, a grape vine sprawling about the ground or making a brushheap of itself in an apiary is the most lamentable. Your success pecuniarily absolutely depends on keeping every thing trimmed up neatly; and while we think of it perhaps you had better make your sawdust paths first, then you can work around the vines and bees with pleasure.

We believe we never enjoyed ourselves better than when we had a wheelbarrow full of sawdust, the article being just scarce enough here to make it precious, and our "better half's" dust pan, (that was before the apiary could afford one of its own) with which we sprinkled just enough in the mud to make a clean footing, then rolled our barrow along and built a little further until we had white streets along beside and in front of the hives, that so captivated the children, they were ready to scream with delight, when told they were expected to get the fire shovels and run over the paths and pat the sawdust down until all was smooth and hard; stepping off into the mud subjects them to the penalty of being chased by "Papa's" wheelbarrow.

Weak colonies and in fact all of them should be well protected by Quilts, and if each colony can have two or three 'twill not be amiss in the spring. See that there is no crack nor crevice where the warm air from the cluster can escape, and keep the entrance so small that the bees can just pass out and in. As the frost is leaving the ground the stands will have a tendency to thaw on the south side first and thus tip them out of true; but until we can decide upon some remedy, which seems not so easy, we can watch them and prop up one side a little until the frost is out.

We hope a number of our readers will try the forcing plan given on another page, or will even try bedding a hive in the south side of a manure heap or one extemporized for the purpose. We can at least thus at small expense try the effect of a raised temperature, with absolute protection from all frosts, on brood rearing in the spring.

In regard to stimulative feeding in spring we really know of no better way than the "dry sugar" given last month; when the weather is such they cannot fly, turn up one corner of their quilt gently in the evening, and pour a few spoonfuls on the cluster.

'Tis true by cutting a hole through the quilt and covering it with wire cloth, we might do it a little handier, or we might use a variety of feeders but we dislike having so many traps around or having so many quilts with holes cut through them.

"P. G." has a plan of her own for feeding that has been quite successful, as follows: She makes an oblong bag of stout cotton and covers its mouth by sewing in a piece of coarse wire cloth, perhaps 1½ by 10 inches. This is placed between two combs moved slightly apart, near the cluster, and is filled by pouring the syrup through the wire cloth when the quilt is turned back slightly; the wire cloth holds the mouth of the bag open and prevents bees from getting into it. Whatever plan of feeding you propose in spring, do not do any thing that will allow the warm air to escape upward from the cluster.

ARTIFICIAL PASTURAGE.

The opening article in the *A. B. J.* for Feb. by Mr. Gallup, it seems to us strikes about at the root of the matter of raising plants or trees for bees. Almost every season the bees work on some plant that we had never noticed their visiting before; and with the exception of white clover we have had failures from all sources. Locust trees gave us such a crop in 1870, that we meditated planting an orchard of them; but we have had no honey of any account from them since, although they have been full of bloom; basswood has also been almost a failure for three years past in this locality: buckwheat is reported generally very uncertain, and the autumn flowers, unless in the vicinity of a large swamp seeem equally unreliable. It would seem extremely doubtful whether it will pay to undertake to raise any plant exclusively for bees, and we would advise none to unbertake it unless they have ample means; and it should a'so be remembered that 'tis folly to expect much from any source unless there be at least an acre of it. 'Twere well to consider whether the same money instead of being expended in artiflcial pasturage had not better be used for the purchase of sugar to feed, for in that case you are sure of the result, whether it be for queen-rearing, or for furnishing winter supplies.

Raising Rape for the seed, near an apiary might be a very profitable plan but as yet, we have so far as we know, had no direct practical report of its value in this country. We tried a small piece last season, and the grasshoppers ate off every leaf as soon as it appeared, but we propose trying it again this year. Alsike clover seems to be our only hope of any thing certain, and even here we have more reports of failures than positive success. If farmers could be induced to raise Alsike as they do red clover, there can be no question of its being a great benefit to beekeepers. It certainly must be profitable to raise it for seed, and we are surprised that the price is not only kept up but continues to rise. We were advised by our leading seedsmen to offer it in our circular at the same prices as last year, and the result has been that we have sold seed for 30c. that cost us 33c. because none of the new crop could be found in the market for a less price. If beekeepers can't make it pay to raise it for the honey, they certainly can for the seed, and as there is little danger of loss in the operation we should advise Alsike before every thing else, and while you are about it *give it plenty of manure*, and good culture, for lots of honey requires lots of plant food, and we "Young Americas" when we undertake a thing, like to make it a success if 'tis a possible thing in spite of obstacles that may chance to arise. Those who have the brain, muscle and energy that commands success in whatever they undertake, are the ones we want for beekeepers. See friend Nevin's letter, page 33.

PROBLEM 19 COMPLETELY SOLVED IN A NOVEL MANNER.

THE following experiment seems to have hit the solution of Prob. 19 so direct, and pleases us so much that we mark our friend paid for five years on GLEANINGS. We presume almost all of our readers are familiar with the construction of hot beds, and we think no possible harm can happen if this forcing process be undertaken as soon as this reaches you. Should you succeed in building a colony up to the "swarming pitch" by the first of April you will probably, if you keep them properly under control get a result in the way of honey, that will amply pay for a dozen hot beds and the attendant care.

Our Bees are in splendid condition so far, I was all through them on the 21st, (Jan.) and in some I found three sheets with brood in, and in none did I find more than a handful of dead bees. I feel as if we were safe for this time, and begin to look forward to our next honey season. My hives are all out of doors with straw mats on the combs, are dry and in fine order. I was somewhat surprised to hear you say that we could not have had the bee cholera in this section; why, some bee-keepers lost 60 and 70 hives, while others did not lose quite so many, for the simple reason they did not have them to lose, I am satisfied I would have lost all of mine last winter if I had not given upward ventilation, some I saved by that means when a mere remnant were left to tell the tale, and by careful nursing in what might be called a "hot bed" got a good return from them in the way of honey and artificial swarms. My hot bed consisted in surrounding a hive with about six inches of manure on the three sides and bottom, covering the tops with a quilt and mat and leaving the front open. It would have done you good to have seen how the Queen "spread herself;" I was a little afraid it might be too hot for them but I heard no complaints, and I saw eggs deposited and hatched out of the cluster just as we do in summer; it came out my best hive and returned me the most honey. I hope some others may try the same and give us the results.

H. E. CURRY, 208 West 4th, St. Cin. O.

Later: An appeal for further particulars brought the following;

In reply to your inquiries I am sorry to say I did not keep a record of my experiments. I had no idea of succeeding as well as I did or I would have been more particular, I think however, it was the latter part of March, but last year was a strange year, one it wont do to go by, if I remember we had very cold weather in April, even the blue birds were deceived. I thought of your lamp Queen Nursery and of Patent Incubators; the heat in those are kept up by means of a lamp and hot water, if the hot bed is as successful as I think it is, it will do just as well and perhaps better. I must close by thanking you for your kind offer of a five years subscription, and can assure you it is appreciated, at the same time I could not think for a moment of abusing good nature in such a way, but as long as GLEANINGS is conducted in the manner it is, I shall take pride in supporting it.

THE STANDARD HIVE AND FRAME.

IN our hasty description of a hive for the proposed standard frame in our last, we made an error in length of cover that was not noticed until half the papers were worked off, and still more humiliating was it to discover after all were off, that we had given directions for cutting a side and end respectively 30 and 15⅜

inches from a board *forty five* inches in length. We really hope our carelessness has annoyed no one, and would plead as an excuse that the importance of the matter induced us to crowd it in hastily at the last minute. The 45 inches should read 46,and the cover 30 inches long.

That the matter is one of deep interest to many may be gathered from the following communications.

FRIEND NOVICE:—On page 23 last No. of GLEANINGS, in describing your standard hive you say "but if only just as much honey can be secured with it etc." That was just what troubled me one year ago, and so I made three one story hives, three foot long, and they gave the best satisfaction of any hives I ever used; had the entrance at the end, and by placing the brood in the centre, or back of the centre, I found the bees would store the honey in the back end every time before filling empty comb in the front end. Although it was a poor honey season, one swarm gathered 63 lbs. in three days; up to Aug. 1st, 215 lbs, then I divided and made three good swarms that gathered stores enough for winter.

I have concluded to make hives as follows: for summer, one story hives not less than three feet long, for winter, Simplicity hives 12 inches wide, to hold eight frames, which I think will hold bees and stores enough for wintering inside. HENRY PALMER,

Hart, Mich. Feb. 2nd, 1874.

Our opinion is quite favorable to your plan. Those eight frame hives which we think will be plenty large enough for wintering, will also answer a very good purpose for starting colonies before they get so large as to demand a full hive. Will not a 30 inch hive instead of three feet, answer for the majority?

FRIEND NOVICE:—GLEANINGS for Feb. rec'd about two hours ago, and among the many important subjects noticed is the Standard Frame question. I use a frame about the size of friend Gallup's and like it on many accounts better than larger frames, but if Bee-keepers could be induced to agree on, and adopt a Standard Frame, it would be of great benefit to all Bee-keepers and Manufacturers of hives also. My ideal frame would be a shallow one for summer, and a *deep* one for winter, and the only way I have thought of to combine the two desirable features, is to take the Langstroth or Quinby frame and use them horizontally for summer and perpendicularly for winter. I intend to experiment the coming season with Quinby size, as that just fits my hive one way. I propose to set the hives on end soon as the basswood season is over, so as to give the bees time to arrange their brood and the late honey or *sugar syrup*, in the proper position for winter. I have always noticed that swarms with plenty of sealed honey *immediately* above the cluster, keep the most quiet and winter the best in every respect. The swarm spoken of on page 22 that wintered in a nail keg so successfully, undoubtedly had plenty of sealed honey immediately above the cluster owing to the shape of the keg; now the same swarm hived in the same keg, and kept in a horizontal position, with the same exposure, would have stood a slim chance to winter.

This subject will bear a good deal of agitation, so let's hear from all. Yours for a Standard.

Mexico, N. Y. GEO. T. WHEELER

P. S.—If you want any hives manufactured to fill orders from the Eastern States, I would like to make some arrangement with you that would be satisfactory to both. I can make them "with knot holes or without." G. T. W.

Reports of late years seem to favor hives with a depth of frame from 9 to 10 inches, for wintering, rather than taller ones, and we are not sure the keg would not have wintered equally well on its side.

Mr. Quinby gave the plan several years ago, in the *Agriculturist*, of standing frame hives on end in winter, but we believe few practiced it. Bees in winter seem disposed to cluster at the top of the hive whatever may be its shape, and a hive rather shallow with a *close tight* quilt over the frames seems to afford them the best facilities, for brood-rearing.

ON THE SIZE OF THE FRAME.

DEAR NOVICE:—I have been very much surprised in seeing in your circular, that if you were to choose among the different frames used in this country, you would give the preference to Langstroth, then to Adair, then to American, and after these three, to Quinby.

This operation does not seem consistent with what you have written on the American hive, in the *A. B. J.* for June 1872, page 274 where you say the bees raise more brood in the shallow, than in the high frames.

Beside, if you like the L. frames because they have 17⅝ inches in length, how is it you do not like the Q. frames? Is it because they are ⅞ longer? If you do not like the Q. frames because they are 2⅛ higher than the L. how is it that you prefer the Adair, which is of the same size, and the American, which is even 1¾ inches higher?

Before pronouncing your judgment did you try all these shapes of frames? If so, you have obtained results very different from what I have experienced.

For ten years I have used both sizes, Quinby and American; and after a trial carefully made, I concluded, three years ago, not to augment any more the number of my hives with square frames, 12 by 12, and to make only Quinby hives, accordingly, I have since peopled a second apiary, six miles from my residence, with Quinby hives exclusively. To day, in my home apiary, you will find more than one hundred Quinby hives, ready to receive my swarms, and not one square frame hive newly constructed.

For six or seven years, I have tested the laying ability of my Italian Queens. For that purpose all my hives, destined to produce honey, have been made with a capacity for eleven Quinby frames, or if American, sixteen. Last season I had here eighty stands, which I intended for gathering honey; about forty of each kind, besides my hives destined to make swarms and raise queens. By the first of June three of my Quinby hives had between seventy and seventy five thousand cells containing brood; while the best of my Americans had about ten thousand cells of brood less. Yet both kinds had equally young and prolific queens, the same pasture and the same care.

Besides, eight Quinby frames have a greater area than ten Langstroth, or eleven Adair, and are usually equal to twelve American. Do you not think that the work is more quickly done with 8, than with 10 or even 12 frames in the hive?

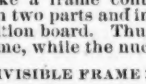
The area of comb filled with brood in the frame is always in spring like a sphere flattened at the bottom part. The bees, in spring, experience some hesitation to lengthen the brood nest, at the bottom; because the bottom of the comb is always colder than the sides. Hence the queen finds always more cells, warmed and ready to receive her eggs, at the sides, than at the lower part of the comb.

Lastly, it takes more bees to surround and warm 12 frames than 8, for instance, the compass of a Quinby frame measures 59½ inches, and for 8 frames 476 inches, while the 12 American frames measure 576 inches, and it takes 15 per cent more of bees to protect the same quantity of brood, and in the Langstroth hive 10 per cent more than in the Quinby. To conclude: I cannot admit, without protest, your opinion, as to the measure of the frames, for, in my opinion, you are mistaken in your classification.

For the benefit of your readers, I will tell you how I have solved the problem of making nuclei, to raise queens, with my great Quinby frame, without cutting the comb.

I have contrived to make some frames, divisible at will in two equal parts, all my hives, destined to raise queens, receive some of these divisible frames. I have also some small hives, or nuclei, fit to receive these half frames, when I want to people one of these small hives, I take a frame containing brood and honey; divide it in two parts and insert it in a small nucleus with partition board. Thus the Quinby hive gives only one frame, while the nucleus gets two.

DADANT'S DIVISIBLE FRAME: NO PATENT.



When the two parts are united, the buckle A, of wire, of the frame with the tongue, enters in a button hole pierced at C; a small nail, easily removable, entering in the buckle at C, maintains the two parts together.

The same device can as well fit the L. frames. I have used it at least eight years, with the best results.

Hamilton, Ills., Feb. 4th 1874. Ch. Dadant.

Reply on page 35.

Gleanings in Bee Culture,

Published Monthly,

A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

MEDINA, OHIO.

Terms: 75c. Per Annum.

For Club Rates see Second Page.

MEDINA, MAR. 1, 1874.

MR. MUTH, sends us a sample honey Label in blue and gold with a Langstroth Bee Hive thereon that is rather neater than any thing we have seen heretofore.

WE can furnish GLEANINGS with the *A. B. J.* for $2. 25; with *Mrs. Tupper's Journal*, for the same; with *Bee Keeper's Mag.* $1.50, or all four of the above for $4.00. Terms, invariably cash in advance.

JUST as we feared, and 'tis the *Prairie Farmer* that has copied from the *A. B. J.* the article on the *Worthlessness* of the Italians.

They have our thanks however for the aid they have given toward establishing a Standard Frame, by giving our article on the subject.

IN *Mrs. Tupper's Journal* for Dec. page 287 we read: "Three thousand and six hundred workers will fill a quart measure." By careful count we find *One thousand nine hundred and eighty eight* clean, dry dead bees fill a quart measure, and judging therefrom we think *one thousand* live Italians would have to be squeezed some to get into a quart measure; at our estimate of $1.00 per quart, ten bees are worth just one cent, so you can see just how expensive 'tis to use a hive that smashes the little innocents.

E. Kretchmer & Co., Coburg Iowa, write us they intend rearing 1000 $1 Queens the coming season, all from Imported Queen mothers; also that they sell a hive thoroughly painted for $1.00, without frames, all of which would be pleasant news were it not that Mr. K's. Circular, like his book gives one a very unfavorable opinion of the man. He seems now even more unscrupulous than of old, in copying the ideas of others as his own, and goes so far as to even make extracts in such a way as to entirely change and subvert the writers original meaning. In regard to his business habits we know nothing further than that he does not scruple to receive money for "rights" to devices, knowing they are utterly worthless for the purpose intended.

IT were no more than just to our correspondents to inform them, while thanking them for their favors, that it is utterly impossible to publish *one fourth part* of the *good* articles sent us for publication. For instance: we have now on hand at least a dozen on wintering, worthy of a place but matter of more importance at this season, demands we dismiss the subject again until fall. In one of our former circulars we offered to pay for new, valuable matter, and we do so yet, but it should be borne in mind that unless the writer has had the care of a considerable number of colonies, the chances are much against his article being considered one we can afford to pay for. No apology need ever be made for writing *us* on Bee-culture; 'tis our business to carefully read and weigh the contents of each letter. Questions of a general nature we prefer to answer through these pages, all others with very few exceptions will receive prompt answers, to the best of our ability, by return mail. Where a subject has been discussed at length in the back numbers we cannot do more, than refer to such numbers.

MR. KING, in speaking of the decease of Agassiz remarks; "He repudiated the repulsive Darwinian doctrine of development, with all the force of his impulsive nature." We hope we shall be excused for wondering if Mr. King too, has not read Darwin; it is not our province here to discuss his theory, but 'tis his due to state that Darwin's experiments with bees, to determine in what manner their combs are built (see Origin of species, page 216 to 224,) were perhaps more thorough, than any similar ones ever made by our modern bee-keepers. No Apiarist can fail to see that every line of what he writes on bees was the result only of careful and patient observation.

It may be well to state here that we first saw the book after having written our criticism on Agassiz' "Life in the Bee Hive" in our June No. of last year; it was then handed us by a friend, remarking that our account of comb building strangely agreed with Darwin's observations on the subject.

How much of Agassiz' *Life in the Bee Hive* was real observation, and how much guess work, Mr. K. knows full well. "Truth is mighty etc.," and should not be smothered, even out of respect to the memory of those departed.

WE find to day, Feb. 9th, three more colonies dead. Two of them obviously died as did the two former ones, from lack of bees; the other presents to us a case not easy of solution. It had been one of our most active colonies of hybrids, and in fact the hive was christened the "Robber Chief" on account of their propensity to hustle out all hands at the faintest intimation of any such disturbance.

After their journey to the swamp, (they had been a populous two story hive) we found a large amount of dead bees on the bottom board, and a week or two later when they were fed, another heap of dead bees was brushed off; and on lifting them to go into winter quarters still another heap remained on the bottom board. An examination showed they had still kept dying until the last of them perished among clean combs of sealed sugar syrup, no trace of dysentery, and the bees were dry and clean. We can think of nothing amiss unless the bees were too old, but this seems very unsatisfactory, for some brood was reared in the fall we feel sure, we cannot now recollect how much, nor how late. It hardly seems proper to call this a disease when the bees seem so perfectly healthy.

Mr. Wilkin and some others mention similar cases. All the rest of our colonies with a few exceptions seem to be wintering finely.

P. S.—We measured *three quarts* of dead bees although every dead bee was carefully removed from the hive when housed Nov. 22nd.

Feb. 16—WE have just purchased two loads of coarse, fermenting manure at the livery stables; placed three hives on their summer stands with the entrances turned southward, directly under the grape vine trellisses; placed about 6 inches of manure under each, then protected the hives from being discolored etc., by standing cheap shingles all around them and on top, then covered the whole hive except the entrance at the south. As the hives are but 6 feet apart we make a winrow as it were of manure over each row of hives. The idea is to use manure enough to prevent the hive being exposed to a freezing temperature at any time, on the plan of a mild hot bed. The Simplicity hives again, show their great advantage over the others with their projections; but a very small amount comparitively, being needed to cover the former, both of shingles and manure.

HOW TO MAKE A FOOT POWER BUZZ-SAW, FOR MAKING HIVES.

THE following diagrams are drawn on a scale of ¼ inch to the foot; the same letters referring to the same parts in all.

Fig. 1

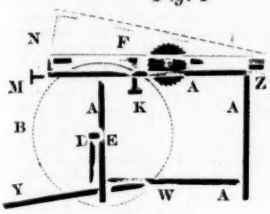


Fig. 2

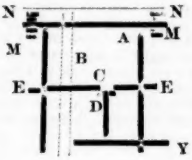


Fig. 5

Fig. 4

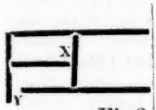
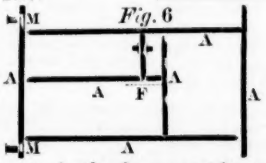


Fig. 3

Fig. 6



A, A, A, etc. is the frame work made of hard wood 3 by 3 scantling, put together with mortises and tenons, and drawn up firmly with bolts. Fig. 1, is a front view; Fig. 2, a view from the end where the operator stands; Fig. 6, top frame work where the table top is raised up as in dotted lines in Fig. 1; Fig. 4, table top, and Fig. 5, treadle, The balance wheel B, seen in Figs. 1, and 2, should if possible be as much as 3 feet in diameter and weigh about 150 lbs; the shaft C, is made of a bar of square or round iron at least 1½ inches in diameter for the weight of balance given above. This shaft after the crank of 2¼ inches stroke is forged in at D, should measure about 1½ feet, and conical holes should be drilled in the ends to receive a heavy, pointed tempered steel screw, screwed into the front legs at E, E, thus giving a small amount of friction, with a ready means of screwing up the bearings whenever they become loose. Very much depends on a nice, true, balance wheel, but many saws that do very well are made with much lighter ones than the above, and some of them are even made of hard wood which however we cannot recommend; a better way is to buy some kind of an iron wheel, even one selected from heaps of old iron will many times do after being covered with wood and turned off true.

The position of the saw and the manner of supporting is clearly seen in Fig. 6; the saw should be about 8 inches in diameter and can usually be purchased best with the arbor, of some saw maker. The driving pulley should be about 2½ inches in diameter, but two, would be better if covered with rubber which can be had nicely adapted to the purpose, of J. W. Sutton, 95 Liberty St. N. Y. As we have arranged the pulley so near the balance, which seems almost unavoidable for ease in working, this rubber covering becomes very necessary unless we fix a pulley to take up the slack of the belt somewhere at F. The construction of the top will be seen at a glance at Fig. 4, it should be made of 1¼ inch hard well seasoned wood, screwed firmly to the 1½ by 2 inch pieces so as to leave the slot G, 4 inches wide, for the bar H, to slide in. You can exercise your skill in seeing how strait you can dress out H, and how nicely you can fit it to slide in G, for the accuracy of all of your work will depend much on this; also see if you can fit I, in place so perfectly square that you can saw out a piece of board so true on all sides that when turned clear around *every corner will be square.*

It should also be adjusted to make a perfect mitre such as is used in making picture frames etc. Spring stops are used in both of the bars I, and J, made of a strip of brass ¾ by 3 inches and about 1-16 thick, bent at right angles at ½ inch from the end; the long end is fastened by two screws in the bottom of a shallow mortise in such a way that the bent portion projects as seen at I, but can be pressed out of the way by a slight pressure, consequently when these stops are once set right for the sides, ends or cover of a hive, by holding the corner of the board against the proper one we always get *exactly the same measurement*; the same is true of frame stuff when held against J. For rabbeting etc 'tis very convenient to be enabled to raise and lower the whole top, this is done by the screw K, the lower bar of the top, being entered at the ends into holes made in blocks mortised in at Z, permitting the top turning on it so as to allow being raised as seen by the dotted lines in Fig. 1, also guides are hinged at each corner as seen in M, and N, to enter mortises in bar A, shown in Fig. 6.

O, is a strip 1½ inches square hinged with three common hinges to back of table top in such a way that it can be turned over on the top, or turned completely below the surface on the back side. The usual parallel stick P, which should be about 2½ square hardly needs description, it is attached to O, by the strips hinged to turn firmly at R, S, T and U, and fastened in its place by bar Q, with a set screw where it slides through a mortise in stick O.

Treadle, Fig. 5, is made of stuff about 2 by 3 and is pivoted on bars A, as seen at W, Fig. 1, in a manner similar to the balance shaft. The hook on the crank D, is pinned at its other end in the treadle at X; the step for the foot is a piece 1½ by 6 inches by 2 feet and is made to project at Y, for convenience in working at the side of the table in rabbeting etc.

Top of table 3 by 4½ feet; top of table from frame 3 inches. Top of table from floor 3 feet; distance between legs A, length 3 feet, width 2 feet outside. Length of treadle 3 feet; width as great as the space will admit. We would use a belt if soft about 3 inches wide.

It will be observed, the balance runs a little below the surface of the floor, and that we de-

pend on having the front feet bolted very firmly to the floor as there is no room for crosspiece as in the back end.

So many directions are given for filing saws that we prefer that each one should learn by experience how to file his saw so as to have it cut nicely.

We have been asked to make our description very minute, which we must offer as an excuse for having given such lengthy details.

It will be observed, we have so arranged the table that it may be cleared in an instant of every obstacle, and it should be located in a room large enough to enable us to saw a sixteen foot board in two in the middle if necessary, as it often is, to enable us to use the best economy in working our lumber. With a good machine, and an expert active operator, the speed at which good hives may be made is almost incredible.

A quick, bright eyed boy or girl of a dozen years, when they have learned to handle the pieces, will assist almost one half, and if not kept at it too long at a time, will learn to enjoy it more than play.

For further particulars in using the machine see Vol. 1. To do nice work and to do it easily, use seasoned pine lumber planed accurately to exactly $\frac{7}{8}$ of an inch in thickness.

P. S.——W. Bingham & Co. Cleveland, O. furnish excellent saws both rip and cross cut, size mentioned, for $1.75. We think they can be sent by mail for about 10c. each, if wrapped in stout paper.

Humbugs and Swindles
Pertaining to Bee Culture.

[We respectfully solicit the aid of our friends in conducting this department, and would consider it a favor to have them send us all circulars that have a deceptive appearance. The greatest care will be at all times maintained to prevent injustice being done any one.]

IT seems too bad to allow our old friend to monopolize this department but when we get an advertisement, and a kind letter from him direct, we certainly can't refuse to insert it; as we put it in the reading columns too, he really might afford to pay us extra. We are sorry to be obliged to advise our readers to get their Queens some way, before sending the money, for a number of letters seem to indicate that sending money to Mr. M. is like pouring water into a tunnel, you know perfectly well where you put it but that's all.

Columbia, Tenn. Feb. 11th, 1874.

MR. A. I. ROOT, DEAR SIR:—Please insert the enclosed advertisement in the next Number of your valuable paper, and let stand for six months, send bill in May. Would be glad to furnish you with any early Queens or Nucleus Colonies you may want; we will have Queens out in March. Send paper.

Yours truly, N. C. MITCHELL.

EARLY ITALIAN QUEEN BEES.

We can furnish any Number of Pure Italian Queens or Nuclei or full Colonies in April and May. Send for price list. Address N. C. MITCHELL,
Columbia, Tenn.
After May 1st, address Indianapolis, Ind. or Cin. O.

We trust you for the advertisement Mr. M., but GLEANINGS is, *cash in advance.*

G. H. Boughton's advertisement still appears in *Mrs. Tupper's Journal* yet complaints keep coming in from those having sent him money.

DEPOSITORY OF
BLASTED HOPES,
Or Letters From those who have made Bee Culture a Failure.

WE thought we had completely Italianized 12 of our colonies, but upon examination this week, they have the appearance of hybrids, can it be the cold weather? We have about 30 swarms in Langstroth hives, have been at an expense of $200 and more, and have never realized 10 per cent. At first we thought it was from increasing, next we could do better by Italianizing, this was worse for they swarmed too often—now we think it from the scarcity of Bee forage, though we have sown Mustard and Buckwheat and planted Borage, we shall now try Horse mint, and expect to try Linden, and think we will get 200 or 300 trees from you, next fall at the proper time, when do you think best? J. A. NELSON & SON,
Macon, Ga. Feb. 6th, 1874.

We are so little acquainted with the South we hardly know what to advise, but very much doubt the policy of raising artificial pasturage to help the matter. Have our friends used the extractor? Is there not some month in the year that gives a yield of honey greater than can be secured, and have our friends had their colonies strong and thrifty in anticipation of this? We are inclined to think with Mr. Quinby, that after we have secured the honey that is now wasted, there will be time enough to then think of artificial pasturage. Has none of the $200 gone for "patent hives"?

Have been very unfortunate for two years past, lost more than half my apiary, winter before last. Lost it *all* last winter, Italian, hybrid, and black. Stock on hand about 50 hives of empty combs, Supers, boxes, lumber, etc. etc.

Cause of loss, Melextractor; long cold winter; Cellar too cool; unwholesome autumn honey perhaps, etc.

Truly yours, J. W. MURRAY,
Excelsior, Minn. April 22nd, 1873.

We don't remember to have heard how our friend came out, but guess he is all right now, for our Western Apiarists have a way of "pitching in" and getting their 50 or 100 colonies again, that is amazing. We can hardly think the extractor should be blamed, although its owner might, if he used it to *starve* his bees.

Reports Encouraging.

I WILL give a few facts about my bees. 10 rather weak in the spring, gave, box honey, 400 lbs. extracted honey, 420 lbs. increase 12. My book shows I have sold the above, at an average price of 22c. Have had bad luck in getting purchased queens *on time*, think I shall try some of your advertised men next season. H. W. MINER, Sarinac, Mich.

P. S.—Considerable has been used in the family besides some remaining on hand not in above report.

I have 72 stocks of bees all in cellar, all O. K. I cut every Queen's wings off close to her body as soon as fertile, then I can attend to my business or go to church without loosing bees by swarming, I lost 75 stocks last winter; wintered out doors; commenced spring wi h 13 stocks; and did not divide until after June 15th. E. D. GODFREY, Red Oak, Iowa.

That's the sort! Bee-keepers should "Never say die." Why clip so much of the Queens wings? We don't like them to look like "bugs."

Last summer I felt the need of a saw to do my own cutting, (as I could not get my stuff cut neatly,) after reading your description of yours, I made one and have cut out 700, 3 lb. boxes, besides much other work, just as it ought to be done. Last summer I had 21 colonies, in September I increased 40, which at this date, are nice and dry and in good condition.

W. STUMP, Cin. O.

P. S.—In dividing I had Nucleus Queens ready for the new swarms.

HONEY COLUMN.

ONE of my honey customers here, a wholesaler told me the other day that he bought 100 cases Philadelphia (so called) white clover honey, but that he could not recommend it any more since he knew my honey, and that he would buy no more Philadelphia honey when his present stock was gone.

CHAS. F. MUTH, Cin. O.

Now is it not possible for the people to become so well posted on honey, that 'twould be as easy to palm off a poor article of *butter*, as honey. Butter makers well know that a poor article when thrown into market, finds its level right speedily. Why is it not so with honey?

YOU are welcome to the jar of honey, we have 30 more, it will kill the bees in winter, and hurt them any time, so will any honey that has fermented, and any honey will ferment in summer unless kept very cool, I do not know from what source it was obtained. We are putting up honey in glass tumblers with paper covers, one side is covered with wax, and made fast at the top with the same, it works first rate.

We had a curiosity to see some really *poor* honey—we don't get any here—and the above was rec'd in reply to some of our queries in regard to it after receiving it. It certainly is poor and what surprised us was that our "slow oven" process did'nt make it good. In regard to fermentation, we think our friend is wrong; we believe neither honey nor syrup can ferment unless it is too thin, i. e. contains too much water. We feel quite certain our Medina Co. clover honey as we now extract it, can not be made to ferment in any weather unless water be added.

I have been melting candied honey and was just thinking how nice the double tin hive for Queen hatching would be for this purpose.

R. WILKIN, Cadiz, O.

Thanks for the idea; by having a molasses gate attached to one corner, candied honey could be "jarred," quite expeditiously and the even temperature, that cannot exceed boiling water could not possibly injure the color nor flavor of the honey.

Heads of Grain,
FROM DIFFERENT FIELDS.

MR. A. ROOT: SIR:——Since June last I have been a constant reader of the *A. B. J.* and am so well pleased with your way of talking on Bee-topics that I have long felt an inclination to write to you on the subject, but when I read in the Nov. No. that you had more friends than you *desired* I concluded to wait a while. A few days before Christmas the Dec. No. came and in a few minutes I had your explanation. Now that the holidays are over and I have entirely recovered from the effects of the gayeties thereof, I write, and if I prove tedious please charge it to my interest in and love for Bee-keeping.

Permit me to indulge in a little personal history for I love to tell what a great benefit this business has been to me. My habits were sedentary and in the spring of '71 my life seemed only a question of time' and a very short space of time; but it was not so, for I took the advice of a sensible Physician who prescribed "little medicine, generous diet, plenty of sleep, and an *interesting light out-of-door occupation.*" I engaged in Bee-keeping with my Brother who did all the hard work but in the Winter of '72 he moved away since which time I have had to "row my own boat" with not even a sister to suggest and assist as "Nellie" does "Cyula." My Father is an old farmer and will *not* look at Bee-keeping through my spectacles. I never owned many colonies; *lost* four ninths during the winter and spring of '73, the remaining five ninths were very weak, I learned a lesson there.

Although the past season seems to have been quite unfavorable I have no idea of retiring from the Apiary but hope for better seasons and intend making an honest effort to make this business remunerative this year; and think it necessary to have an extractor. Brother and I used the Melipult—of course I do not want it—I have seen two cylinder machines but it seems to me they were both unnecessarily heavy and inconveniently large. Tell me in what particular your $6 & $10 machines differ. I want a good durable machine but the leanness of my portemonnaie forbids my buying ornamental things, well as I like them. Do you consider diluted honey objectional as spring feed?

An Interested Bee-keeper.

Hendersonville, Tenn.

Our friend is not the only one who feels she is much indebted to bees for a longer lease of life, and also for having given a new zest to the pleasure of living. Our cheap Extractor is the same as the other excepting the outside can which is neither as convenient nor durable. We know of no objection to feeding honey in the spring except want of economy, when sugar is so much cheaper.

Yes, I want GLEANINGS of course, would not be willing to do without it. I have all the Numbers published in a little book now with index, and I must say, that, among all the back Nos. of the four Bee Journals I am taking and all the books I have on the subject, there is not to be found so much useful matter in so small a compass as in GLEANINGS.

I have been keeping from 50 to 60 swarms of Bees here for the past four years, and have lost over half each winter on the average, but at this date every swarm is lively and seems perfectly healthy under the straw mats on summer stands. I have never used the mats before this winter.

I believe the merits of catnip as a honey producing plant have not as yet been fully appreciated, particularly if it is grown on good ground and cultivated. I cultivated a small patch in my garden last summer and my bees were swarming on it from the 25th of June to the middle of Sept. almost three months, and there was not a day during the whole time so stormy that they were not on it some portion of the day. I have raised plants the past season to cover nearly an acre, which I shall transplant and cultivate carefully. I have sowed a large amount of the seed on waste places about for two years, but the bees do not take to it any thing like they do where it is on better ground and cultivated. Will try to give you some results next season. It is my opinion that the catnip will out do Linden altogether coming as it does and lasting through the whole season of scarcity. Quinby says: "If there is any one article I would cultivate exclusively for honey it would be Catnip."

M. NEVINS, Cheviot, O.

Give us the results of the "Catnip plantation" by all means. Even if a failure you should have the hearty thanks of all Bee-keepers. We are very much inclined to agree with Gallup that a brisk growth brought about by cultivation or other causes is almost essential to the secretion of honey, and with the catnip if we are correct our only hope of making the project pay is the honey it produces.

DEAR NOVICE:—As I have been dabbling a little with bees for many years, and reading the *A. B. J.* for two years, to see who was the biggest fool, and could get up the most complicated intricate and difficult bee hive and moth cage, and as they are still getting new patents I fear I shall never see the end, so I have concluded that one practical man (If he be a Novice) is better to consult than a host of theorists; so I have concluded to try Novice.

B. T. TALBOT, Viola, Iowa.

We have experimented considerably, and find Adair's drone trap to be worthless; his close fitting section hive an intolerable nuisance, and find that his new idea hive will not do what is claimed for it. It will not prevent the building of drone comb, and is enough to wear the patience of Job, to handle the frames frequently; besides it is too revolting to humanity to be compelled to brutally murder our innocent pets: and altogether too barbarous to be tolerated at all in this enlightened age.

Dr. E. C. LARCH, Ashland, Mo.

The above, although seemingly harsh is a very fair illustration of the practicability of many of the patented appliances for Bee Culture. It may be however that Adair has a knack of handling them himself more successfully, but we cannot think he works a very large Apiary with Section Hives.

Apropos of Problem 19th, has the following fact any significance? My queenless colony raised hundreds of little drones during November, which month with us was colder, more wintry than December. The cells in which said little drones were reared had not been lengthened—were capped over like worker brood. It is reasonable to suppose, therefore, that genuine worker brood would, *under the same circumstances* have received the same care.

May it not be then, that by removing the queen, after securing a supply of eggs, (I suppose a plan might be devised for keeping her safely a few weeks,) the rearing of a limited quantity of brood (or an unlimited quantity, if eggs can be obtained,) can be *at any time ensured*? L. A. W.

We have often noticed how carefully eggs and larvæ were nursed in a queenless colony, but are not prepared to say from practical experiment that *more* young bees would be raised. Those having queenless colonies this spring (see Dec. No. page 90) will be pretty sure to test the matter and we hope will report.

I see that Bee men are not yet satisfied as to dysentery or bee disease, and I never was till this winter and now I *know* the cause, found the cause *accidentally* and not by smartness.

I put all but 7 in the cellar second day after the cold weather, and the 7 several days after it turned cold so they had been exposed and were *gorged* with honey, and being confined were not able to empty themselves, and the result *dysentery* or *bee disease*, th 7 are now all dead, while the remaining 85 are good and all right. I would willingly wager 50 hives against 50 that I can produce the disease in any hive by exposing to a severe cold snap say a week, mercury some times down to zero or below, then if the weather turns favorable for flying, prevent by putting in cellar or bee house and expose again, perhaps once will do.
D. D. PALMER, Eliza, Ills.

We are sorry to dampen our friend's enthusiasm but he forgets like many others that the same thing has been done hundreds of times without injury, again, perhaps the worst cases of loss were in Feb. and March or even April, where the bees were left out and not moved at all. Precisely the treatment he mentions does not give our sugar fed colonies the disease. He further adds some heavy questions for a Novice to answer but we'll try.

A few questions for GLEANINGS.

1st.—When bees are gathering honey or pollen do they gather from one or more species of plants?

2nd.—Have queens ever been known to mate with a drone of a fertile worker or an unimpregnated queen?

3rd.—Why do bees build their combs corrugated or wavy?

4th.—Will Queen cells do as well in a horizontal position as perpendicular after being capped?

5th.—Do the bees leave the cocoons in the cells?

6th.—Can bees hear?

1st.—Usually one, but we find many exceptions.

2nd.—A number of direct experiments seem to indicate the small drones good, but others stoutly contend they are not.

3rd.—We think generally because the colony is weak. When the colony is strong and hive "chock" full of bees, combs are generally strait and regular.

4th.—We think so but may be wrong.

5th.—You may see by dissolving the comb in hot water.

6th.—Mrs. N. says they can, for they always come to the pump in dry weather when they hear it going.

What is the size of the perforated tin you use on your tea-kettle feeder, what is the *number*, how fine. answer in GLEANINGS.
F. W. CHAPMAN, Morrison, Ills.

About 17 holes to the inch each way, are found in the perforated tin we use, but we rather think larger holes would be less liable to fill up with sugar, however a tea-kettle of hot water cleans them quickly. Some one proposes to make these feeders of boards made tight with wax; these will do very well one season but after that, make much trouble by leakage, while tin although a little more expensive, lasts indefinitely.

Light Wanted:—I have been trying to make some bee-quilts and can not make them to suit, they get so puckered up that they will not lie down square, we tried to quilt them with a machine, please instruct us by letter. ALBERT POTTER, Eureka, Wis.

Don't quilt them. Make them just like a pillow case and have them rather large; have the sides of the hive come at least a half inch above the top of the frames and then tuck them in tight every time so not a bee can even make faces at you before the hive is closed.

If it be not necessary for Polish bees to fly for purification for a period of eight or nine months, why will not our bees remain quiet and healthful when confined for half the time?

Would you not like frames 14 inches long, (instead of 17 ¾,) provided you could fill a hive with them of same capacity at same expense, better than you do your present style of frames?

Is there not too much *weight* of comb and honey in your 8 ¾ by 17 ¾ inch frames, to handle in the extractor safely? Very truly,
G. E. CARLIN, M. D. St. Johns, Mich.

We know bees used to stand a low degree of cold for months in northern climates and really cannot see why they should not stand our winters for the last few years.

We feel quite certain *we* can raise more brood in the shallow Langstroth frame than in any deeper one and we find them also *best* adapted to the extractor after having tried all those given on our circular except the Adair frame.

Much depends however on having a very tight hive; the movable side, in our American hives always lets in so much cold air, as they always must do, that, perhaps our experiments with deep frames were defective in that respect.

FRIEND NOVICE:—We fellow Novices would like to know if the honey flies above the comb in using them end downward in the extractor, and does it take less force to throw it out that way, than it would if hung as it is in the hive? With the extractor I use, the honey flies up six inches or more when thick and cool.
R. S. BECKTELL, New Buffalo, Mich.

If the frames revolve one inch lower than the top of the can we cannot imagine how the honey can fly out. With the frame longest way up and down, no part of the comb need exceed 6 inches from the central shaft, consequently we have less centrifugal force, the machine may be lighter, less power is required to stop and start, and we work easier and faster.

Can I keep bees *successfully* in the *heart* of a City, or will they interfere with Grocery and Confectionery Shops, that are near?
STEPHEN WILLIAMS, Nashua, N. H.

Yes. When there are no natural stores to be had, keep them busy on sugar as we do, and if you think you cannot afford the sugar, make them pay for it by rearing $1.00 Queens.

OUR, "Latest Intelligence" CORNER

Questions not too lengthy, may be answered through this department even if not received until within two days, of the first of the month; and in two days more, nothing preventing, you may have your paper containing the reply. If our friends would use a separate piece of paper for this, and in fact for each of the departments, and write on one side only t'would be quite a favor, but if it's too much trouble, don't do it, for we want to hear from you any way.

HERE we are once more, this 27th day of Feb. 1874, and Bee Culture stands about as follows:—No positive case of the dreaded malady has yet been reported; unusually favorable reports come from all quarters, both in regard to out, and in door wintering.

Bee Keepers Mag. for Feb., we noticed last month.

WE would suggest to Adair the propriety of returning the money sent him for his Dec. Annals. *Three months* behind time can hardly be considered excusable.

ALTHOUGH *Mrs. Tupper's Journal* for *Feb.* did not come to hand until the 26th, she presents us one of the most valuable Nos. yet issued.

THE *A. B. J.* made its appearance on the 9th, with an unusually fine selection of valuable articles. Both in typography and arrangement, it is not only a credit to our branch of industry, but to AMERICAN JOURNALISM as well.

THE *Bee World* for *Feb.* made its appearance on the 25th. Its typography is somewhat improved, and Mr. Moon seems to have a fine corps of contributors; but for *mercy's sake*, why does he not get some one to read his proof. If the man can neither read, write, nor spell, himself, he certainly should not leave his readers to infer that no one in *Rome, Ga.*, can do any better. Among all the host of transient Periodicals with which our country is now flooded we have never before seen any thing so lamentably deficient in the principles which any common school education should give, as Mr. M's attempts at editorials. We say this with no ill feeling toward Mr. M. but on the contrary would be much pleased to add to our list of Bee Periodicals, one published in the South.

ON page 220 of *A. B. J.* for 1870, J. L. Davis writes: "But I do say that I can raise Queens for $1.00 apiece if taken as soon as fertile," by which it appears we were not the first to suggest the idea.

SEVERAL complain that their Italians look like hybrids in the winter; we think this only owing to the faded colors of the old bees, and that when the young bees get out, their markings will be equally as fair as last season, unless the Queen has been superceded.

INSTEAD of the long arguments, as to who is right, and who is wrong on wintering, would it not be as well to watch and see who is most uniformly successful? Those who perfectly understand it should winter, aye, and "spring too," without loss. We hope all will be as faithful in reporting losses as successes.

N. C. MITCHELL, writes to ask our readers to defer concluding him really untrustworthy until May or June, when he will make good all promises. He also insists, Moon is much the *worse* man of the two, yet we have let *him* go "scott free"; to which we reply that Moon has done nothing, so far as we know, whereby the *good of community* requires he should be "shown up"; unless it be, forsooth, his *murdering of the English Language.*

(*Continued from page* 26.)

Our reason for putting the Quinby frame last, was mainly on account of its size, and as there must be a stopping place some where, we had concluded that about the capacity of the L. frame was enough. Our objection to the American frame in *A. B. J.* was written while using the old style with cross bar in the middle, and of a depth of 15 inches or more; when made 12 by 12 they can be readily used in a tight hive like the L. without a movable side. Yours were probably the old movable side American hives, and perhaps this was somewhat the reason for the lack of brood. It is our impression you could have done nearly, if not quite as well, with the L. hive. We agree with you perfectly in regard to the Queen's dislike to enlarging the brood-nest downward. Being enabled to use 8 combs instead of 10, would be with us a heavy argument in favor of the large frames, and were we to handle them personally, without expecting any aid from feminines and juveniles, we might give it a preference. In our attempts to get the bees to work in boxes, we have for two seasons had illustrations of heavy Q. frames that were enough to intimidate a good sized child.

In regard to the divisible frames; we made similar ones two years ago, and formed a plan of having the hive so narrow that with rabbets clear around, we could put in the small frames cross wise, and the whole ones length wise, thus securing the advantages of the Gallup hive for Queen-rearing etc., and the Quinby hive for honey. After getting over our first enthusiasm on the idea, we concluded the advantages were not sufficient to compensate for the complication rendered necessary for a divisible frame; and so we turned back to our old Langstroth frame again, as we have many times before, satisfied it was nearest the desideratum, *all* things considered.

THE long, one story hives had better be made with a permanent bottom board "let in" like the cover, for it will be found quite difficult to make them tight otherwise, in so long a hive; besides as they are not to be used two story, there is no especial need of a loose bottom. Further directions next month.

WE have 13 colonies under as many manure heaps, (now covered deep with snow also) with the south side of the hive exposed, in such a way that they can fly, at any glimpse of sunshine, ad libitum, and yet the manure affords so much protection that we think water would not freeze, under the same conditions, during the most severe winter weather. Is it possible that we have at last a plan of wintering our bees on their summer stands without exposing them to a freezing temperature? This would chime with the broad one story hives nicely.

WERE we to judge of the value of Conventions by the excellent addresses of Prof. Cook, and M. Quinby, given respectively in *A. B. J.* for Feb. and *Utica Morning Herald* of Feb. 5th, we should have no doubt of their great utility. The Convention at Utica, furnishes a great number of practical facts, and much credit is due them for their concluding summing up of the report in a tabular form; but why does it not embody also, the yield of Capt. Hetherington's large apiary? Attend Conventions by all means, when you can do so without making the *expense* of the Apiary, on an average, overbalance the total receipts.

Will the kind friend who sent us the above papers accept our earnest thanks for the same.

GET your bees to working on the meal now as speedily as possible. Exercise your ingenuity in securing a place for it *in the sun*, but out of the wind, rain and snow. A mixture of grains seems to please them best; we have just had ground up finely together, one bushel of rye, two of oats, and one of wheat screenings composed largely of chess. For economy in using it we would put it on a level platform large enough to afford a foot square for each stock. But little attention will be paid to the meal after they get natural pollen.

I have 40 stands of bees, (Italians) use the Gallup frame—bees in good order—have several "New Idea Hives," did well last year—*rather large*—think I prefer 21 frame hive to 32—my long hives did better last year than the standard or 12 frame hive—began last spring with 20 stands, purchased them mostly of Gallup—all Italians—season poor—basswood failed, sold less than 300 lbs.—put the hives into cellar, all but ten of the largest—and prepared them for winter according to Gallup's mode. I think that I will make some of your form of hives this spring—if for nothing else I like them on account of there being no waste material. Name lost.

Names of responsible parties will be inserted in either of the following departments, at a uniform price of 10c. each insertion, or $1.00 per year.

$1.00 Queens.

Names inserted in this department the first time without charge.

Those whose names appear below agree to furnish Italian Queens the coming season for $1.00 each, under the following conditions: No guarantee is to be assumed of purity, safe delivery or any thing of the kind, only that the Queen be reared from a choice, pure mother. They also agree to return the money at any time when customers become impatient of such delays as may be unavoidable.

Bear in mind that he who sends the best Queens, put up neatest and most securely, will probably receive the most orders. Special rates for warranted and tested Queens, furnished on application to any of the parties.

J. Shaw & Son, Chatham Center, Medina Co., Ohio.
I. E. Daniels, Lodi, " " "
G. W. Dean, River Styx, " " "
E. C. Blakeslee, Medina, " " "
Willis J. Phelps, " " " "
W. J. Hosmer, Janesville, Minnesota.
John L. Davis, Holt, Mich.
James A. Buchanan, Wintersville, Jeff. Co., O.
Dr. J. P. H. Brown, Augusta, Georgia.
Miss. Annie Saunders, Woodville, Miss.
W. J. Standefer, Dry Grove, Hinds Co., Miss.
W. D. Wright, Knowersville, Albany Co., N. Y.

Hive Manufacturers.

Who agree to make such hives, and at the prices named, as those described on our circular.

Geo. T. Wheeler, Mexico, N. Y.
G. W. Dean, River Styx, Medina Co., O.

Business & Personal.

Apiarist Wanted; S. W. Greisinger, Carlisle, Pa.

And "Lyons," care W. W. Barnum, Southport, Ind. wants a place; can make hives or handle bees. Also: Situation wanted; but we have lost the applicants name, as we have also the names of several who had empty combs for sale, etc., but if you'll send your names with the respective "ten centses" we'll submit the whole matter to our readers. Advertisers should remember that GLEANINGS is *so small* every word is usually read.

WE are pleased to note that Mr. Quinby offers empty comb for sale. At the price he has fixed—50c. for Quinby frames of *worker* comb—we think they should go off rapidly. Those having empty comb in any of the standard frames, we think would find a ready sale for them by advertising. His new smoker it seems to us would be cumbrous; 'tis worked with a little bellows.

There are a few things in Mr. Q's circular that we cannot help protesting against. For instance;

"In consequence of the advantage which this hive enables us to take of the labors of the bees, by preventing their swarming, &c., it is safe in a good season to calculate on an average of one or two hundred pounds of box honey, or two or three hundred when the combs are emptied with a machine—which will sell for more in one season than the price of colony."

This has appeared in his circular we believe for three years, yet if any Bee-keeper in the U. S. has ever made an apiary of 50 or even 25 hives give such a result *on an average* we should be pleased to hear of it. We wrote Mr. Q. when we first saw his circular containing the statement, asking him if it was wise to put it so high; even his own apiary since then, so far as we can gather, has given an average of considerably less than 100 lbs. either box or ext'd honey. Should the hive have a great advantage over those in common use for box honey, we can hardly think even Mr. Q. *himself* intends to intimate, *his hive* has any especial advantage for extracted, yet it seems to read so; it consists when arranged for the latter, simply of 16 Quinby frames arranged horizontally with the entrance midway at the ends of the frames.

The new swarming arrangment can of course be applied as well to any hive that affords them room to work, but we believe it is now pretty generally conceded that a faithful use of the extractor alone, rarely fails to prevent an attempt at swarming, rendering the queen yard useless for any but box honey.

Is it well to hold out to beginners a statement like the above? 'tis almost sure to end in "blasted hopes." Would it not be better to estimate 50 lbs. on an average? then if they did better than that there would be no feeling that they had been humbugged by having false hopes held out to them. Again:

"In giving this hive to the public, it is not with the idea of making it pecuniarily profitable. It is designed for our own special use and advantage in connection with this system of management. But being willing that any person who might wish to give it a trial, without subjecting us to the trouble of giving a detailed description of it, should have the privilege, we have given it publicity, and we will furnish the hive as a sample to work from, cheaper than to give a full description, with measurements, &c., which we cannot do."

Has he ever considered that as the hive itself is only a plain simple box, full directions could be published in the circular, or even given in the Journals at the trifling expense, to him, of making the measurements, and descriptions *once*. As his price for the empty hive with one box and Queen yard, is $8.00, and they can easily be made for $4.00, it looks as if there must be a "pecuniary profit" somewhere. Such cumbrous hives should certainly be made near home to save the great expense of shipping; almost every neighborhood of Bee-keepers now affords some one who can make good hives, at a moderate price. The express charges, (Mr. Q. recommends sending them *only* by express) on such a hive is really "fearful," as many of our friends in the Western States can testify. Aside from the glass in the honey boxes, there can be no trouble whatever in sending the hives safely as freight, if a little extra time and expense be used in crating them.